

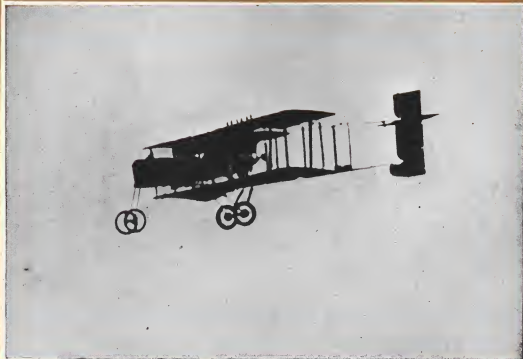
"If war were declared to-morrow, what would we do for aircraft?"

AVIATION

MAY 28, 1923

Issued Weekly

PRICE 10 CENTS



French Voisin bombing plane in flight under Radio Control

(Photo of the Voisin)

VOLUME
XIV

SPECIAL FEATURES

Number
22

BRITISH HELICOPTER COMPETITION
DEVELOPING EQUIPMENT FOR NIGHT FLYING
FRENCH RADIO CONTROLLED AIRPLANE FLIES
THE PASSING OF A GREAT AERONAUTICAL PIONEER

THE GARDNER, MOFFAT CO., INC.
HIGHLAND, N. Y.
225 FOURTH AVENUE, NEW YORK



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MAY 28, 1923

AVIATION

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Expiration of Original Wright Patent

THE recent month, marked in France and England regarding the airplane patent situation in the United States may forecast another attempt at "foreign invasion." The original Wright patent expired on May 22. It will be recalled that in the Spring of 1909, both the French and the British had given for marketing large quantities of their airplanes as a bonus equipment to this country. American manufacturers at that time provided the "champion" in airplanes based upon sale for patent infringement.

The Spring there have been asked a number of airplanes, designed to give the late equipment that the aviation the much of the original Wright patent leaves the entire field of airplane construction in the United States free from claim of patent interference. In addition, within the last week or so, there have been published 4 patents from London and Paris, being up the expiration of the Wright patents which expired in England in 1916, with those of Humberger. This may be an attempt to give the latter patents a status that for not recognized in this country. This was followed by a later dispatch from Paris stating that the French-Polish "Dopisk" patent has received an award in a hearing before the "Fourth Tribunal of the Seine" against various French airplane manufacturers, based upon an affidavit sworn by them. The latter may carry the statement that M. Robert Dopisk-Polish has been awarded a favorable verdict as the French court as a basis upon which to appeal for similar verdicts in America and other foreign countries.

The owner of the "Dopisk" patent stated the United States some time ago, for the purpose, it was stated, of considering claims against the United States government and American manufacturers, but finally returned to France without doing so.

The impression has been created that these dispatches from Paris and London are inspired by a desire to indicate that the expiration of the first Wright patent leaves the American airplane market free from possibility of patent interference and that the American airplane manufacturers may soon be getting together in a demand of certain patents not yet recognized in this country.

It is well known that following the expiration of the original Wright patent, the Wright Brothers and other owners such as F. W. Tulliver, Graham Bell and Curtiss applied for and received patents that are essential to the operation of present types of aircraft and that in addition to the work of those men there are a large number of other patents of more or less importance, covering the entire field.

There has been a recent tendency on the part of some to protest American airplane patents. In fact, previously and presently there has been advanced the false theory that

through a patent monopoly, certain individuals or interests in the United States are engaged in preventing the development of aviation in this country. As a matter of fact it is well known in reasonable aeronautical circles, that the cause of handling airplane patents in this country has been based upon a local liberal businesslike plan and that since our entry into the war, instead of any attempt at monopoly through ownership of patents, just the opposite has obtained. There has existed in the country, since that time, an opportunity for any respectable airplane manufacturer in the United States to secure a license to use practically all of the United States airplane patents upon payment of a nominal royalty on each plane manufactured and sold. At the same time, American manufacturers have been protected from unfair foreign competition through efficient efforts of the owners of American airplane patents.

Further Progress on Helicopters

A N important step forward in the development of helicopters is reported from France, where two such aircraft have just succeeded in effecting flights in a closed circuit. On May 1, the Goubaux-Penged helicopter No. 12 for the first time soared in flight a circular course of 120 meter diameter, and on the same day the Pottier helicopter No. 11 made a similar performance over a circuit of 48 meter diameter. It is also reported that the G.P. helicopter three days previously achieved two hovering flights, one of 155 meters and one of almost 1 meter duration, which serves to confirm that the original stability of this machine has now been obtained.

The great importance of these performances will be apparent to students of the problem of vertical flight. Previously several helicopters evidently accomplished hovering flights at some distance, but in these performances it was difficult to determine the existence of the wind. It would, for instance, be perfectly possible for a helicopter devoid of means of horizontal propulsion to come to certain distances horizontally through the aid of action of the wind. The machine then behaves like a free balloon, except that sustentation is had from the vertical thrust of propellers instead of from lifting gas.

The accomplishment of circular flights by two helicopters at totally different centers therefore marks a notable advance, for if a wind was blowing during these flights the machines had to fly with as well as against the wind, while if there was no wind their controllability was no less seriously demonstrated.

As we recalled some time ago, the question of the helicopter is progressing. The French helicopter competition recently shows the importance some countries attach to this type of aircraft.

"If we were declared to-morrow what would we do for aircraft?"

British Air Ministry's Helicopter Competition

Prizes of 50,000 Pounds Offered

The British Air Ministry announces that the Air Council has decided to offer prizes amounting to £50,000 for the successful completion of certain flying tests, including the use of a helicopter or equivalent type of flying machine.

The conditions of entry and the tests to be carried out are as follows:

1. The Air Council will subject to and in accordance with the conditions of the Competition award prizes amounting to the sum of £50,000 in connection with the production of a flying machine which serves and independently of the nature of any limited structure or of power or machine supplied from any source referred to the machine used in the satisfaction of the Judging Committee appointed by the Air Council for the tests specified in Condition 14.

2. All entries by persons intending to enter flying machines for the competition must be sent to the Secretary, Air Ministry, before April 30, 1923. No entry received after April 30, 1923, will be accepted.

3. Prizes among those undertaking the tests named in Condition 1 will be required to carry a pilot, valued for one hour's flight at £150 lb. of ordinary load.

The Tests Prescribed

4. The following are the tests to be undertaken by flying machines entered for the competition:

Test (a) The flying machine must make—

- (1) In a ground run not exceeding 5 m.p.h., and
- (2) In a ground wheel standing 30 m.p.h., and not exceeding 20 m.p.h.

a vertical flight from a position on the ground to a height of 2000 ft. and descend and land without damage.

Test (b) The flying machine must make in a ground run not less than 5 m.p.h. or exceeding 20 m.p.h. a vertical flight from a position on the ground to a height of 2000 ft. and descend in a stable attitude over a ground area determined by the Judging Committee and thereafter descend and land without damage.

Test (c) The flying machine must make a vertical flight from a position of rest on the ground to a height of 2000 ft. and then fly over a prescribed solid circuit of not less than 20 miles in length at an approximate constant height of not less than 2000 ft., and at an air speed of not less than 40 m.p.h. and thereafter descend and land without damage.

Test (d) The flying machine must in a ground run not less than 5 m.p.h. or exceeding 20 m.p.h. a vertical flight from a position of rest and be maneuvered while in the air over a given ground point as directed by the Judging Committee and must thereafter fly over a given ground point, not less than 200 ft. below engine, and slight weather damage within a specified smaller area on the ground having a radius of 500 ft. and the given point as a center.

5. The term Vertical Flight in paragraph 4 means a flight commencing from the starting point without appreciable divergence from a vertical line passing through such starting point.

6. No separate entry will be made in respect of each flying machine intended to be entered for the competition. The Air Council reserves the right to refuse any entry not in

7. Entries must be made by the owner or owners of the flying machine upon the form of entry provided by the Air Council, and must state the name, address, profession and nationality of the owner or owners and the names, addresses and nationalities of any other person or persons having an interest in the machine.

8. Estimates will be required as a condition of the acceptance by the Air Council of the entry to furnish the Air Council with their written acceptance of the conditions of the competition together with the written consent to the entry and

acceptance of the conditions of the Competition of any person or persons having an interest in the flying machine entered.

9. Entries must also be valued upon the basis of the Air Council with only further substantial deviation or other evidence to the Air Council now require is such that the entry is made with the consent of the Air Council. The Air Council will not accept any entry unless it is based on the conditions of the Competition.

10. The Air Council reserves the right to add to or alter any of the conditions of the Competition other than the tests to be undertaken by flying machines and the amounts of the prizes to be awarded for such tests.

11. Each entrant must at the time of entry furnish particulars of all persons which have been applied for or granted and of all claims for which compensation has been applied for or granted in respect of machines or designs included or made use of or in connection with the flying machine entered.

12. Each entrant must at the time of entry furnish the Air Council with a description and general arrangement drawing of the flying machine entered and must also furnish information in respect thereof as may be required by the Air Council. The Air Council reserves the right to require the Air Council or any person or persons appointed by them shall at all times to examine any flying machine which has undergone the test and to take records for the use of the Air Ministry of such measurements, particulars and details as may be required and the entrant, his servants and agents shall attend all reasonable facilities and assistance for the purpose.

Time and Place of Tests

13. The Air Council will, at its discretion after the date on which entries close proceed with the tests of flying machines which have been entered for the competition and will notify entrants of the time and place appointed for the tests of the machines entered by them but no time and place will be notified in the event of no entrants being entered for any test. The Air Council will not be bound by the conditions of the Competition required to be fulfilled by the entrant of such machine have been completed.

14. In the event of any one of the four tests named in Condition 4 not having been held in respect of any flying machine entered for the Competition within a period of twelve months from the date on which entries close such tests shall be deemed to be withdrawn from the Competition by the entrant, in respects any test or tests which have not been held in respect of the machine and the machine shall be disqualified from competing further for any prize other than the prize or prizes (if any) allocated under Condition 13 in respect of the test or tests which the machine has entered for.

15. The tests named in Condition 4 will be carried out under the control and direction of the Judging Committee appointed by the Air Council and the Judging Committee may determine the order in which the tests shall be carried out and may alter the order of the tests as they may think (including discontinuation of competing machines) as they may think necessary. All entrants given an entry or their servants or agents by the Judging Committee must at all times abide by the rules laid down by the entrant and their servants or agents.

16. The duration of the Judging Committee appointed by the Air Council or any matter connected with the tests at the discretion of the prize and the duration of the Air Council or any other matter connected with or arising out of the Competition shall be held without appeal.

17. No application for assistance for financial assistance from public funds will be entertained by the Air Council who

will undertake no responsibility in respect of any expenses incurred by entrants in connection with the design, construction, transport or test of flying machines entered by them. All such expenses (including traveling and other expenses of the Judging Committee appointed by the Air Council) in any case in which an entrant desires the income of the Air Council to be the test of the entrant's machine being held at some place other than that originally appointed by the Air Council) must be borne by the entrant.

18. Flying machines entered for the competition will at all times be under the charge and control of the entrant, and no liability will be accepted by the Air Council for injury or damage to persons or property caused by or to the entrant of any machine or any person or persons having an interest in the machine or his or their servants or agents in connection with the competition.

19. The prize in connection with the competition will be as follows:

Subject to and in accordance with the conditions of the Competition—

- (1) A sum of £50,000 will be awarded in respect of test (a) named in Condition 4.
- (2) A further sum of £25,000 will be awarded in respect of tests (b) and (c) named in Condition 4.
- (3) A further sum of £25,000 will be awarded in respect of tests (c) and (d) named in Condition 4.
- (4) A further sum of £25,000 will be awarded in respect of tests (a) and (d) named in Condition 4.

20. The prize named in Condition 18 will be awarded to the entrant of flying machines which are entered for test a) in connection with the conditions of the competition at the appointed time and place and which machine shall be the satisfaction of the Judging Committee appointed by the Air Council carry out the tests specified in the process of and under the direction of the Judging Committee.

21. In the event of two or more flying machines successfully and to the satisfaction of the Judging Committee appointed by the Air Council carrying out any test or tests for which a separate prize is allocated under Condition 18 (1), (2), (3) and (4) the prize allocated for such test or tests will be divided equally or in such proportion as the Judging Committee may determine between the entrants of such machines.

22. The Air Council shall not be bound to recognize any claim right or interest of any person or persons having an interest in any flying machine entered for the Competition other than the entrant of the machine and the receipt of the

entrant shall be sufficient discharge for any payment made by the Air Ministry in respect of any prize or share of a prize awarded.

23. No part of the above mentioned prize will be awarded in respect of the helicopter now being constructed by Louis Bréguet, Eng. C. R., for and on behalf of the Air Council, 28, to the extent of any of the prizes not being awarded such prize will again be allowed for competition within a further period of one year from the date of the announcement by the Air Council of the result of the original tests upon which it was awarded.

24. All communications in respect of the competition should be addressed to the Secretary, Air Ministry, Admiralty House, Kingsway, London W.C.2, England.

Airship to Fight Cypre Moth

In the quest of Aerolite, Inc. at Hamaonopolis, N. Y. there was completed some time ago the Aerolite, a flying machine which is a small airship, known as the M1 (inter-bellows) which is equipped with two 15 hp. engines and is capable of carrying five passengers. The ship was successfully fitted at the Engineering Service, Air Service, at McCook Field, where it is now stationed.

The M1 will shortly be put to an actual service. It will start on June 1 for Caswell, N. H. to fight the cypre moth which is causing serious trouble upon the forests of northern New England. The ship will be handled by an Air Service crew.

New York State has appropriated \$100,000 to fight the cypre moth along the border from the St. Lawrence river to Long Island Sound, but the effort from the ground is likely to prove inadequate. With aircraft a large area can be covered in a few hours, and repeated sweeps overcome the new breed of moth as they appear.

Bedford Blinn, vice president of Aerolite, Inc. stated that this ship was the first to be constructed in the United States specifically for the purpose of spraying and poisoning with chemical fumes selected by parasites, and the first of its kind to be flown by two pilots. The M1 is equipped with a new type of inflator ball apparatus, which on the ground will be used in a falling manner, such as a motor tank. Tanks will also carry a gas compressor pump to supply the hydrogen, so that the outfit will be self-contained wherever it may be operating.

Japanese Naval Air Activities



Photo Taken at Yokohama

One of two Japanese naval flying boats, 27 type, with the crew, which recently flew from Yokohama, to Saeki, Japan, in distance of 200 miles.

"If you were declared tomorrow what would we do for aircraft?"

"If you were declared tomorrow what would we do for aircraft?"

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